

RECEIVED
CENTRAL FAX CENTERIN THE CLAIMS:

OCT 25 2007

Claims 1-14 (canceled)

15. (Previously presented) A tool for insertion between a first vertebra with a first cortical bone plate and a second vertebra with a second cortical bone plate, said tool comprising:
a proximal handle connected to an elongate shaft configured to rotate about a longitudinal axis of the tool;

a first non-cutting portion adjacent said handle, said shaft extending through said first non-cutting portion and being configured to rotate relative thereto;

a cutting portion fixed to said shaft to rotate therewith, said cutting portion being positioned distal to said first non-cutting portion, said cutting portion including a first pair of generally parallel opposing faces and a second pair of opposing faces each extending between said first pair of faces, said second pair of faces each defining a number of teeth;

a second non-cutting portion fixed to said cutting portion, said second non-cutting portion defining a distal head extending distally from said cutting portion; and

wherein said first non-cutting portion, said cutting portion, and said second non-cutting portion have a rotatably selectable alignment to present a generally constant height dimension, the height dimension corresponding to an intersomatic space defined between the first and second cortical bone plates to facilitate insertion of the tool therein, said cutting portion being rotatable out of said alignment to cut a first opening into the first cortical bone plate and a second opening into the second cortical bone plate while inserted therebetween.

16. (Original) The tool of claim 15, wherein said first non-cutting portion includes a pair of stops configured to correspondingly bear against the first and second vertebrae to limit the extent of insertion of the tool between the first and second vertebrae.

Response to Final Office Action
Application Serial No. 10/825,767
Atty Docket No. MSDI-343/PC273.22
Page 2 of 10

17. (Previously presented) The tool of claim 15, wherein said second non-cutting portion has another dimension generally equal to a desired intervertebral space dimension and greater than said height dimension.

18. (Previously presented) The tool of claim 15, wherein said cutting portion has a generally trapezoidal contour.

Claim 19 (Canceled)

20. (Currently amended) A method of spinal fusion, comprising:

- (a) cutting into a spongy part of each of a first vertebra and a second vertebra with the tool of claim 15;
- (b) removing the tool from between the first and second vertebrae; and
- (c) (b)-inserting an implant between the first and second vertebrae after said cutting.

Claim 21 (Canceled)

22. (Currently amended) A method of spinal fusion, comprising:

- (a) cutting a first opening into a first cortical bone plate and into a spongy part of a first vertebra and a second opening into a second cortical bone plate and into a spongy part of a second vertebra with a tool inserted therebetween, the tool including:

a proximal handle connected to an elongate shaft configured to rotate about a longitudinal axis of the tool;

a first non-cutting portion, the shaft extending through the first non-cutting portion and being configured to rotate relative thereto;

a cutting portion fixed to the shaft to rotate therewith, the cutting portion being positioned distal to the first non-cutting portion, the cutting portion including a first pair of generally parallel opposing faces and a second pair of opposing faces each extending between the first pair of faces, the second pair of faces each defining a number of cutting teeth;

Response to Final Office Action
Application Serial No. 10/825,767
Atty Docket No. MSDI-343/PC273.22
Page 3 of 10

a second non-cutting portion fixed to the cutting portion, the second non-cutting portion defining a distal head;

- (b) removing said tool from between said first and second vertebrae; and
- (c) (b)-inserting an implant between the first and vertebrae after said cutting, the implant penetrating the first and second openings.

23. (Original) The method of claim 22, wherein:

the implant includes a first terminal part defining a first bearing surface and a second bearing surface opposite the first surface, the first surface being separated from the second surface by a first distance; a second terminal part opposite the first terminal part, the second terminal part defining a third bearing surface and a fourth bearing surface opposite the third surface, the third surface being separated from the fourth surface by a second distance greater than the first distance; and an elongated central part defining a first projection extending past the first surface and the third surface, and a second projection extending past the second surface and the fourth surface; and

said inserting includes correspondingly passing the first and second projections through the first and second openings; bearing against the first cortical bone plate with the first and third surfaces; and bearing against the second cortical bone plate with the second and fourth surfaces.

24. (Original) The method of claim 22, wherein:

the implant includes a first terminal part defining a first bearing surface and a second bearing surface opposite the first surface; a second terminal part opposite the first terminal part, the second terminal part defining a third bearing surface and a fourth bearing surface opposite the third surface; and an elongated central part including a pair of longitudinal walls defining a cavity for holding a bone graft material, the walls having a first edge transversely projecting past the first and third surfaces and a second edge transversely projecting past the second and fourth surfaces; and

said inserting includes correspondingly passing the first and second edges through the first and second openings; bearing against the first cortical bone plate with the first and third surfaces; and bearing against the second cortical bone plate with the second and fourth surfaces.

25. (Previously presented) The method of claim 22, further comprising performing a discectomy.

26. (Previously presented) The method of claim 22, further comprising inserting a distractor between the first and second vertebrae before said cutting.

27. (Currently amended) The method of claim 22, wherein said cutting further includes: initially inserting the tool so that the first pair of faces are each in contact with a respective one of the first and second cortical bone plates; turning the handle to rotate the cutting portion; and withdrawing the tool from between the first and second vertebrae.

28. (Previously presented) The method of claim 22, wherein said inserting the implant includes:

positioning the implant between the first and second vertebrae; and
turning the implant about one quarter of a turn after said positioning.

29. (Previously presented) The method of claim 22, further comprising implanting another implant.

30. (Previously presented) The method of claim 22, providing bone graft material with the implant.

31. (Previously presented) A tool for cutting a first end plate of a first vertebra and an adjacent, second endplate of a second vertebra, said tool comprising:

a shaft defining a longitudinal axis and having a first end connected to a handle and an opposite, second end;

a first non-cutting portion positioned about the shaft between the handle and the second end;

a cutting portion extending from the second end of the shaft and including a first pair of generally parallel faces and a second pair of faces configured to cut the first and second endplates;

a second non-cutting portion adjacent to said cutting portion, said second non-cutting portion defining a distal head that is located on the longitudinal axis; and

wherein said first non-cutting portion, said cutting portion, and said second non-cutting portion have a rotatably selectable alignment to present a generally constant height dimension, to facilitate insertion of the tool between the first and second vertebrae, said cutting portion being rotatable out of said alignment to cut a first opening into the first endplate and a second opening into the second endplate.

32. (Previously presented) The tool of claim 31, wherein said first non-cutting portion includes a stop configured to correspondingly bear against the first or second vertebrae to limit the extent of insertion of the tool between the first and second vertebrae.

33. (Currently amended) The tool of claim 31 wherein when rotated out of said alignment said first non-cutting portion has a first height between vertebral endplate contacting surfaces thereof, said second non-cutting portion has a second height between vertebral endplate contacting surface thereof, and said cutting portion has a third height between said second pair of faces, wherein said third height is greater than said second height and said second height is greater than said first third-height.

34. (Previously presented) The tool of claim 31, wherein said cutting portion has a generally trapezoidal contour.

Response to Final Office Action
Application Serial No. 10/825,767
Atty Docket No. MSDI-343/PC273.22
Page 6 of 10

35. (Previously presented) The tool of claim 31 wherein the second pair of faces of the cutting portion comprise a plurality of cutting teeth.

36. (Previously presented) The tool of claim 35 wherein the cutting teeth extend along the second pair of faces at an angle oblique to the longitudinal axis.

37. (Previously presented) The tool of claim 31 wherein the second pair of faces have a trapezoidal shape.

38. (Previously presented) The tool of claim 31 wherein the shaft is rotatable within the first non-cutting portion.

39. (Previously presented) The tool of claim 38 wherein the second non-cutting portion rotates with the shaft.

40. (Previously presented) The tool of claim 31 wherein the second non-cutting portion rotates with the shaft.

Response to Final Office Action
Application Serial No. 10/825,767
Atty Docket No. MSDI-343/PC273.22
Page 7 of 10